

**REMARKS**

Applicants respectfully request the Examiner to reconsider the present application in view of the foregoing amendments to the claims and the remarks below.

***Status of the Claims***

In the present Amendment, claims 1, 6 and 16 have been amended. Also, claim 17 is presently canceled, wherein claims 2 and 3 were previously canceled, all cancellations being without prejudice or disclaimer of the subject matter contained therein. This makes claims 1, 4-16, 18 and 19 as pending in the present application.

No new matter has been added by way of the amendment to the claims. Claims 1, 6 and 16 merely incorporate the subject matter from page 5, lines 20-21 of the present specification. The amendment to claim 16 also incorporates the subject matter from canceled claim 17.

The amendment to the Abstract does not add new matter as the change is clarifying in nature.

Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

***Specification***

The specification or Abstract is objected to as stated in paragraph **4** of the Office Action. Applicants respectfully traverse and note that “comprising” has been replaced with “having”. Thus, this objection has been overcome and withdrawal thereof is respectfully requested.

***Issues under 35 U.S.C. § 112, Second Paragraph***

Claims 1, 4-8 and 18 stand rejected under 35 U.S.C. § 112, second paragraph, as stated in paragraph **5**, pages 3-4 of the Office Action. Applicants respectfully traverse.

Applicants respectfully refer the Examiner to claim 1 as presented herein. Alkenyl radicals are present in the component (A). Thus, the claims recite clear claim language. Further, claim 18 properly depends on claim 1. Reconsideration and withdrawal of this rejection are respectfully requested.

***Issues under 35 U.S.C. § 112, First Paragraph***

Claims 16, 18 and 19 stand rejected under 35 U.S.C. § 112, first paragraph, as stated in paragraphs **6-7**, page 4 of the Office Action. Applicants respectfully traverse, and reconsideration and withdrawal of this rejection are respectfully requested.

The Examiner states that the present specification does not enable the use of any organosilane or organosiloxane-modified isocyanurate compound as recited in claim 16. However, claim 16 incorporates the subject matter of claim 17, wherein claim 17 is not at issue. Thus, this rejection has been instantly overcome. Reconsideration and withdrawal of this rejection are respectfully requested.

*Issues under 35 U.S.C. § 103(a)*

Claims 9 and 11-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki (U.S. 2002/0013386 A1; hereinafter referred to as “Aoki ‘386”) in view of Cifuentes (U.S. Patent No. 5,508,360; hereinafter “Cifuentes ‘360”) (see paragraph 8 of the Office Action). This rejection appears to be the same as that made in the Office Action dated April 27, 2005 (see paragraph 5 thereof).

Also, claims 16, 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Aoki ‘386 in view of Dalbe (WO 00/32694; newly cited; hereinafter “Dalbe ‘694”; U.S. Patent No. 6,777,471 is cited as the U.S. equivalent) (see paragraph 9 of the Office Action).

These rejections are respectfully traversed, and reconsideration and withdrawal thereof are respectfully requested.

(i) The present invention and the achieved unexpected advantages

The presently claimed invention is a silicone adhesive comprising (A) an organopolysiloxane partial condensate of (i) a diorganopolysiloxane having a hydroxyl radical and **alkenyl radicals**, and (ii) an organopolysiloxane copolymer having hydroxyl radicals and consisting essentially of  $R^3_3SiO_{1/2}$  units and  $SiO_{4/2}$  units wherein  $R^3$  is hydroxyl or a monovalent hydrocarbon radical, (B) a silane or siloxane compound having a silicon atom-bonded alkoxy radical and/or an epoxy radical, and (C) a crosslinking agent comprising an organohydrogenpolysiloxane with a platinum base catalyst or an organic peroxide. In the present invention, the curing reaction is the crosslinking of component (A), and forming chemical bonds

of component (B) to component (A) via component (C) through mainly a radical reaction or addition reaction.

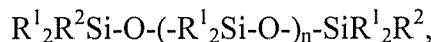
The silicone adhesive of the present invention initially exhibits a tackiness (or pressure-sensitive adhesion) sufficient to fixedly secure a substrate for allowing a further, desirable step (e.g., cutting or the like) to be performed on the substrate. By press bonding another substrate to the adhesive-bearing substrate and heating them, the substrates firmly bond to together. The silicone adhesive of the present invention can be supplied in a film form that is easy to handle and avoids the contamination of the surrounding with fluid ingredients that occurs with liquid adhesives. Because of these benefits, the adhesive film of the present invention can be advantageously used as the dicing/die bonding tape in the manufacture of semiconductor devices. Not all features and advantages of the present invention are disclosed in the cited combinations of references as explained below.

(ii) The disclosure of Aoki '396 and Cifuentes '360

The cited primary reference of Aoki '386 discloses a silicone-based pressure-sensitive adhesive composition, wherein in the previous Office Action of April 27, 2005, the Examiner refers Applicants to paragraphs [0011]-[0015], [0016], [0022], [0028], [0029] and [0047] of Aoki '386 (see paragraph 5 of the 04/27/05 Office Action). The Aoki '386 reference does describe an adhesive composition having, as a uniform blend (see paragraphs [0010]-[0017] of the reference), the following components:

(A) 100 parts by weight of a silicone ingredient which is a combination, either as a mixture or as a condensation product, of

(a) a diorganopolysiloxane represented by the general formula

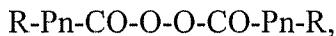


in which  $R^1$  is a monovalent hydrocarbon group having 1 to 10 carbon atoms,  $R^2$  is a hydroxyl group or  $R^1$  and the subscript  $n$  is an average number not smaller than 500, and

(b) an organopolysiloxane consisting of monofunctional siloxane units of the formula  $R^1_3SiO_{0.5}$ , in which  $R^1$  has the same meaning as defined above, and tetrafunctional siloxane units of the formula  $SiO_2$  in a molar ratio of the monofunctional siloxane units to the tetrafunctional siloxane units in the range from 0.6 to 1.3,

the weight proportion of the diorganopolysiloxane (a) to the organopolysiloxane (b) being in the range from 80:20 to 20:80; and

(B) from 0.5 to 5.0 parts by weight of a 4,4'-dialkyl dibenzoyl peroxide represented by the general formula



in which each  $R$  is, independently from the other, an alkyl group having 1 to 12 carbon atoms and  $Pn$  is a 1,4-phenylene group, as a curing agent of the component (A).

However, Aoki '386 fails to teach or suggest the use of the specific silane or siloxane compound (B) of the present invention. Cifuentes '360 is cited to account for the deficiencies of Aoki '386. However, Cifuentes '360 cannot be properly combined with the Aoki '386 disclosure.

The secondary reference of Cifuentes '360 discloses a moisture-curable silicone composition having (see column 2, lines 25-47):

(A) an organopolysiloxane resin comprising  $R_3SiO_{1/2}$  siloxane units bonded to the  $SiO_{4/2}$  siloxane units wherein R is selected from the group consisting of hydrocarbon radicals and halogenated hydrocarbon radicals; and curing radicals of the formula

$-SiY_2ZNY'ZSiR^1_xY''_{3-x}$  wherein  $R^1$  is a monovalent hydrocarbon radical; each Z is a divalent linking group; each Y is independently selected from the group consisting of a monovalent organic radical, an enoloxyl radical, an alkoxy radical, and an oximo radical; Y' is selected from the group consisting of a monovalent organic radical, a hydrogen atom, and  $-ZSiR^1_xY''_{3-x}$ ; Y'' is selected from the group consisting of an enoloxyl radical, an alkoxy radical, and an oximo radical; and subscript x has a value of 0 or 1; and

(B) a diorganopolysiloxane polymer, each terminal group thereof containing at least one silicon-bonded hydrolyzable functional radicals selected from the group consisting of alkoxy radicals having 1 to 4 carbon atoms, ketoxime radicals, enoloxyl radicals, aminoxy radicals, acetamido radicals, N-methylacetamido radicals and acetoxy radicals; said polymer having a viscosity at 25°C of 20 to <100,000 mm<sup>2</sup>/s and the weight ratio of said resin to said polymer being in the range 5:95 to 90:10.

However, Cifuentes '360 fails to teach or suggest the use of the specific organopolysiloxane partial condensate (A) having alkenyl radicals of the present invention. Furthermore, Cifuentes '360 provides the moisture curable composition and not the composition as instantly claimed.

(iii) The disclosure of Aoki '386 and Dalbe '471

The deficiencies of Aoki '386 are discussed above. This includes, e.g., Aoki '386 failing to disclose or suggest using the instantly claimed silane or siloxane compound (B). Citing Dalbe '471 to account for the deficiencies of Aoki '386 is improper.

The cited secondary reference of Dalbe '471 discloses single-component organopolysiloxane compositions which are stable during storage in the absence of moisture and which crosslink to translucent and adherent elastomers in the presence of moisture, made in a single closed reactor with stirring, by the process, batchwise or continuous, having successive steps (or stages) 1 to 3 as described at columns 2-3 thereof. Applicants summarize these three steps shown starting at column 2, line 9 of Dalbe '471 for the Examiner's convenience:

step 1: functionalization by reacting a mixture of at least one reactive linear diorganopolysiloxane A (see (i) in column 2) comprising a hydroxyl group at each chain end, of formula (I) defined below, at least one hydroxylated organopolysiloxane resin B (see 2i)) as defined below, presenting in its structure at least two different units, at least one polyalkoxysilane C (see 3i)) as defined below, optionally, at least one aliphatic C<sub>1</sub>-C<sub>3</sub> alcohol ε (see (5i)), and, optionally, at least one nonreactive linear diorganopolysiloxane F (see (5i)) as defined below, said functionalization being carried out in the presence of a catalytically effective amount of a functionalization catalyst D (see (4i)), provided that said catalyst is not an organic titanium derivative,

step 2: blending or compounding by adding in any order into the reacted mixture obtained in step 1, which is kept stirred, an inorganic filler G (see (6i) in column 3) comprising an amorphous silica in the form of a solid, an effective amount of a curing catalyst H (see (7i)) as defined below, comprising at least one organic

titanium derivative, optionally, at least one nonreactive linear diorganopolysiloxane F as defined below, and optionally, at least one auxiliary agent I, and

step 3: subjecting the blended or compounded mixture obtained in step 2 (see column 3, lines 50+), which is kept stirred, to a devolatilization operation carried out under a pressure below atmospheric pressure;

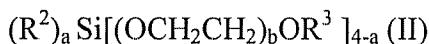
the reactive linear diorganopolysiloxane A is of formula (I):



wherein R<sup>1</sup> substituents, which are identical or different, represent an aliphatic, cyclic or aromatic, saturated or unsaturated, substituted or unsubstituted, C<sub>1</sub> to C<sub>13</sub> monovalent hydrocarbonaceous group,

n has a value sufficient to confer, on the diorganopolysiloxanes of formula (I), a dynamic viscosity at 25°C from 1 000 to 1 000 000 mPa.s, the hydroxylated organopolysiloxane resin B exhibits in its structure, at least two different units selected from the group consisting of the units of formulae (R<sup>1</sup>)<sub>3</sub>SiO<sub>1/2</sub>(M unit), (R<sup>1</sup>)<sub>2</sub>SiO<sub>2/2</sub>(D unit), R<sup>1</sup>SiO<sub>3/2</sub>(T unit) and SiO<sub>2</sub>(Q unit), at least one of these units being a T or Q unit, said R<sup>1</sup> groups, which are identical or different, being as defined above in formula (I), said resin containing hydroxyl groups and having a content by weight of hydroxyl group ranging from 0.1 to 10%,

the polyalkoxysilane C is of formula (II):



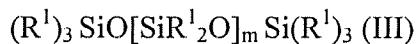
wherein:

R<sup>2</sup> represents an aliphatic, cyclic or aromatic, saturated or unsaturated, substituted or unsubstituted, C<sub>1</sub> to C<sub>13</sub> monovalent hydrocarbonaceous group R<sup>3</sup>, which is identical or different, represents a linear or branched C<sub>1</sub> to C<sub>8</sub> alkyl group,

a is zero or 1,

b is zero or 1;

the nonreactive linear diorganopolysiloxane F is of formula (III):

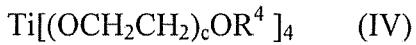


wherein:

$R^1$ , which is identical or different, is as defined above in formula I, m has a value sufficient to confer, on the polymers of formula (III), a dynamic viscosity at 25°C from 10 to 200 000 mPa.s;

the catalyst H is selected from the group consisting of H1 monomers and H2 polymers,

H1 monomers being of formula (IV):



wherein:

$R^4$ , which is identical or different, represents a linear or branched  $C_1$  to  $C_{12}$  alkyl group,

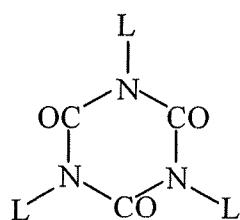
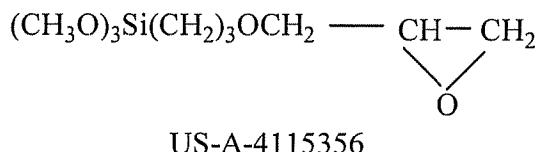
c is zero, 1 or 2,

provided that when the c symbol represents zero,  $R^4$  has from 2 to 12 carbon atoms and, when the c symbol represents 1 or 2,  $R^4$  has from 1 to 4 carbon atoms, H2 polymers resulting from the partial hydrolysis of monomers of formula (IV) in which the  $R^4$  symbol has the above mentioned meaning with the c symbol represent zero.

Further, Dalbe '471 describes its organosilicon compounds as follows:

The adhesion promoter I1, when one of them is used, is preferably chosen from organosilicon compounds carrying both (1) hydrolysable groups bonded to the silicon atom and (2) organic groups substituted by the radicals chosen from the group of the isocyanato, epoxy, alkenyl and isocyanurate radicals.

Mention may be made, as illustration, of the organosilicon compounds corresponding to the formulae below (accompanied by the numbers of the patents in which they are disclosed):



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(see from column 7, line 52 to column 8, line 9 of Dalbe '471).

Despite this disclosure in Dalbe '471, the instant combination with Aoki '386 is improper as explained below.

(iv) The requirements for a *prima facie* case of obviousness have not been satisfied

Accordingly, the combinations of Aoki '386 with either Cifuentes '360 or Dalbe '471 are improper for several reasons.

Aoki '386 and Cifuentes '360

As explained above, Aoki '386 fails to disclose or suggest using the instantly claimed silane or siloxane compound (B). In fact, Applicants respectfully point out that the adhesive composition of Aoki '386 corresponds to Comparative Examples 1 and 2 of the present specification which demonstrate inferior adhesiveness. The comparative composition initially exhibits a tackiness that is sufficient to fixedly secure a substrate for allowing a desired step

(cutting or the like) to be performed on the substrate. However, by press bonding another substrate to the adhesive-bearing substrate and heating them, the substrates cannot be bonded together at all without the specific silane or siloxane compound (B) according to the invention. This is a major deficiency of Aoki '386, wherein the Examiner has to cite Cifuentes '360.

Besides the Aoki '386 embodiment being inferior to the present invention, Applicants note the following problems associated with the Cifuentes '360 compositions.

Again, Cifuentes '360 fails to teach or suggest the use of the specific organopolysiloxane partial condensate (A) having alkenyl radicals of the present invention. But by lacking the claimed component (A), the Cifuentes '360 moisture curable composition is based on a condensation reaction of its component (A) containing curing radical with its component (B) containing hydrolysable function radical. On the other hand, since the silicone adhesive of the present invention is mainly a radical reaction or addition reaction, the Cifuentes '360 moisture curable composition substantively differs from the silicone adhesive of present invention.

Furthermore, Cifuentes '360 provides a moisture curable composition. This means that it takes a relatively longer time to exhibit the desired adhesiveness. On the other hand, the silicone adhesive of the present invention exhibits, initially, a tackiness (or pressure-sensitive adhesion) sufficient to fixedly secure a substrate for allowing a desired step (cutting or the like) to be performed on the substrate. In addition, by press bonding another substrate to the adhesive-bearing substrate and heating them, the substrates can be firmly bonded together. Cifuentes '360 fails to teach or suggest the presently claimed adhesive and the advantages thereof. Instead,

Cifuentes '360 uses a moisture curable composition that leads to inferior results and properties as explained above.

Therefore, the cited secondary reference of Cifuentes '360 fails to account for the deficiencies of Aoki '386 and/or would be improperly combined otherwise. This is because, e.g., Cifuentes '360 fails to teach or suggest the use of the specific organopolysiloxane partial condensate (A) having alkenyl radicals of the present invention and instead uses a moisture curable composition that takes longer to have the same amount of adhesion. Applicants also note how Cifuentes '360 works differently by using its composition based on a condensation reaction of its components (A) and (B) (which in turn leads to the longer period of time needed to make a substrate stick; see explanation above). Thus, Cifuentes '360 cannot be merely cited for a particular component and somehow combined with Aoki '386, when this secondary reference discloses a different adhesive composition from the present invention. In this regard, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure. *See In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). That is not the case here, especially when Aoki '386 does not recognize the benefits of using the instantly claimed component (B), and Cifuentes '360 not recognizing the benefits of component (A).

Moreover, the cited references must suggest the desirability of the modification. *In re Brouwer*, 37 USPQ2d 1663, 1666 (Fed. Cir. 1995). As explained above, the cited references do not suggest any advantage to be gained by making the Examiner's proposed combination.

Still, in the Office Action of April 27, 2005, the Examiner appears to refer to analogous arts and the advantage of using silane in the Cifuentes '360 as the basis for combining these references (see page 5, first paragraph of the 2005 Office Action).

First, Applicants note that while a reference need not expressly teach that the disclosure contained therein should be combined with another, *see Motorola, Inc. v. Interdigital Tech. Corp.*, 43 USPQ2d 1481, 1489 (Fed. Cir. 1997), the showing of combining references "must be clear and particular". *See In re Dembicza*k, 175 F.3d 994, 998, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). There is no clear and particular guidance in either of the cited references to achieve the formulations as presently claimed. It instead appears that this is a case of hindsight reconstruction.

Second, such reasoning in the 2005 Office Action is essentially the USPTO relying on an impermissible level of "hindsight reconstruction" as a basis of support of the instant rejection. *See Grain Processing Corp. v. American Maize-Products Co.*, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988) ("Care must be taken to avoid hindsight reconstruction by using 'the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit.'") (internal citation omitted); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) ("One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."). Applicants note that most inventions are after their presentation easy to understand as well as the benefit of the invention. Therefore, it is normally easy to search in the literature for pieces of information (e.g., referring to just silanes in Cifuentes '360) and to put them together in a manner not suggested and to overlook under which

circumstances the pieces of information were disclosed. It is not sufficient to be able to show that certain pieces of information could have been combined by a person skilled in the art (e.g., referring to analogous arts). Even circumstances that speak against a combination have to be considered (e.g., Cifuentes '360 uses an inferior moisture curable composition). The question is if a person skilled in the art and with no knowledge of the actual invention would have found it obvious, guided by the disclosure in the references (if the references are properly referred to in the first place), to combine them in such a manner that all the necessary characteristics of the invention were revealed. If the references do not disclose all the necessary characteristics then no proper combination can be made. Again, Applicants note that Aoki '386 does not recognize the problems with its own composition, wherein such a composition would correspond to the comparative examples in Applicants' specification. The reference to Cifuentes '360 is also improper as this reference, e.g., uses an inferior moisture curable composition based on a different condensation reaction.

Aoki '386 and Dalbe '471

Regarding the other § 103(a) rejection of claims 16, 18 and 19, Aoki '386 fails to disclose or suggest using the instantly claimed silane or siloxane compound (B). Further, please see the above explanation for the other problems in the cited Aoki '386 reference. The cited secondary reference of Dalbe '471 does not cure the deficiencies of Aoki '386 and/or would otherwise not be properly combined with the primary reference.

Again, in Dalbe '471, the organopolysiloxane composition is based on a condensation reaction of components (i) and (2i) with component (3i) (see components reproduced from Dalbe

‘471 and described above). Though Dalbe ‘471 discloses a substitution of alkenyl radicals having from 2 to 8 carbon atoms for R<sup>1</sup> in the organopolysiloxane polymers A and F, those radicals are optional and nonreactive, do not contribute to the reaction such as a radical or an addition one like that of the present invention. The fact that such radicals are optional in Dalbe ‘471 cannot equal disclosure to achieve the present invention because options presented amounts to an “obvious to try” rationale. Such an “obvious to try” rationale is improper for an analysis of patentability under § 103(a). *See In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1599 (CAFC 1988) (In *In re Fine*, the CAFC reversed the BPAI by stating: “The Board reiterated the Examiner's bald assertion that "substitution of one type of detector for another in the system of Eads would have been within the skill of the art," *but neither of them offered any support for or explanation of this conclusion.*”) (emphasis added); *see also In re Deuel*, 34 USPQ2d 1210, 1216 (CAFC 1995) (where the court states: “Obvious to try” has long been held not to constitute obviousness. A general incentive does not make obvious a particular result, nor does the existence of techniques by which those efforts can be carried out”) (citing *In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1680-1681 (CAFC 1988)). Further, the Dalbe ‘471 radicals do not contribute to the reaction such as a radical or an addition one like that of the present invention, which makes the requisite reasonable expectation of success lacking for this additional reason.

Further, the isocyanurate compound of the present invention as component (B) has both alkenyl and alkoxy radicals wherein the Dalbe ‘471 adhesion promoter mentioned above clearly differs from the present invention (see the parts of columns 7-8 reproduced above). Accordingly, while patents are relevant as prior art for all they contain, they cannot be relied upon to teach

embodiments that are not reasonably suggested to one having ordinary skill in the art. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804 (Fed. Cir. 1989). In the instant case, the skilled artisan could not reasonably infer from the above passage that the promoter of Dalbe '471 could somehow be replaced or modified until the present invention is achieved.

Both rejections have been overcome

Thus, a *prima facie* case of obviousness has not been established since the requisite motivation and/or reasonable expectation of success are lacking for both of the cited rejections. See *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d (BNA) 1438, 1442 (Fed. Cir. 1991). Here, the cited combinations of (1) Aoki '386 and Cifuentes '360 and (2) Aoki '386 and Dalbe '471 are improper for any one and all of the reasons stated above. Reconsideration and withdrawal of this rejection are respectfully requested.

(v) Unexpected results

Applicants respectfully submit that the present invention has achieved unexpected results, whereby such results rebut any asserted *prima facie* case of obviousness (whether based on Aoki '386, Cifuentes '360, Dalbe '471 or any other reference or combinations thereof). See *In re Corkill*, 711 F.2d 1496, 226 USPQ (BNA) 1005 (Fed. Cir. 1985); see also *In re Papesch*, 315 F.2d 381, 137 USPQ (BNA) 43 (CCPA 1963); *In re Wiechert*, 370 F.2d 927, 152 USPQ (BNA) 247 (CCPA 1967). As stated in M.P.E.P. § 2144.09 (see section entitled “*Prima Facie* Case Rebuttable By Evidence of Superior or Unexpected Results”), any rejection under 35 U.S.C. § 103(a) may be rebutted by a sufficient showing of unexpected results for the present invention.

As explained above, Aoki '386 fails to teach or suggest the use of the specific silane or siloxane compound (B) of the present invention. In this regard, Applicants respectfully point out that the adhesive composition of Aoki '386 corresponds to Comparative Examples 1 and 2 of the present specification. The comparative compositions exhibit an intial tackiness sufficient to fixedly secure a substrate for allowing a desired step (cutting or the like) to be performed on the substrate. However, by press bonding another substrate to the adhesive-bearing substrate and heating them, the substrates cannot be bonded together at all without the specific silane or siloxane compound (B) according to the invention. Thus, the Aoki '386 embodiment displays inferior adhesiveness in comparison to the claimed invention.

Further, Applicants note that the comparative showing need not compare the claimed invention with all of the cited prior art, but only with the closest prior art. *See* M.P.E.P. §§ 716.02(b) and 716.02(e); *see also* *In re Fenn et al.*, 208 USPQ 470 (CCPA 1981); *In re Holladay*, 199 USPQ 516 (CCPA 1978). As stated, Aoki '386 corresponds to a few comparative examples in Applicants' specification.

Applicants respectfully submit that the present invention has achieved unexpected results, whereby such results rebut any asserted *prima facie* case of obviousness. Reconsideration and withdrawal of both rejections are respectfully requested.

***Allowable Subject Matter***

Applicants appreciate the indicated allowability of claims 1, 4-8, 10 and 17 as stated in paragraphs 10-11 on page 6 of the Office Action. Applicants note that the rejection stated in

**Application No. 10/644,976**  
**Art Unit 1712**  
**Reply to Office Action of September 6, 2006**

**Docket No.: 0171-1012P**

paragraph 5 of the Office Action, as well as all other rejections, have been sufficiently addressed (see above). Thus, allowance of all pending claims is respectfully requested.

***Conclusion***

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Eugene T. Perez, Reg. No. 48,501, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: DEC 1 2006

Respectfully submitted,

By

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